

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 1 of 1 returned.**☒ 1. Document ID: US 20020086602 A1

L1: Entry 1 of 1

File: PGPB

Jul 4, 2002

PGPUB-DOCUMENT-NUMBER: 20020086602

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020086602 A1

TITLE: Stretch edge elastic laminate

PUBLICATION-DATE: July 4, 2002

## INVENTOR-INFORMATION:

| NAME                   | CITY        | STATE | COUNTRY | RULE-47 |
|------------------------|-------------|-------|---------|---------|
| Friderich, S. Scott    | Alpharetta  | GA    | US      |         |
| Dobbins, Leslie D.     | Marietta    | GA    | US      |         |
| Boggs, Lavada Campbell | Marietta    | GA    | US      |         |
| Fitts, James R. JR.    | Gainesville | GA    | US      |         |

US-CL-CURRENT: 442/366; 156/297, 428/192, 428/193, 442/329, 442/381, 604/358

## ABSTRACT:

A stretch edge elastic laminate having a plurality of elastic filaments substantially aligned in a machine direction and forming an elastic zone and at least one stretch edge positioned along a first lateral edge region of the stretch edge elastic laminate forming a first gasket zone. Desirably, an opposing second stretch edge is positioned along a second lateral edge region of the stretch edge elastic laminate to form a second gasket zone. A nonwoven facing material is bonded to at least one side of the elastic layer.

|                      |                       |                          |                       |                        |                                |                      |                           |                           |                             |                        |                      |                           |                       |
|----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|------------------------|----------------------|---------------------------|-----------------------|
| <a href="#">Full</a> | <a href="#">Title</a> | <a href="#">Citation</a> | <a href="#">Front</a> | <a href="#">Review</a> | <a href="#">Classification</a> | <a href="#">Date</a> | <a href="#">Reference</a> | <a href="#">Sequences</a> | <a href="#">Attachments</a> | <a href="#">Claims</a> | <a href="#">KIMC</a> | <a href="#">Draw Desc</a> | <a href="#">Image</a> |
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| Term  | Documents |
|---|-----------|
| STRETCH.USPT,PGPB.  | 65496     |
| STRETCHES.USPT,PGPB.                                      | 20744     |
| EDGE.USPT,PGPB.   | 863775    |
| EDGES.USPT,PGPB.  | 564688    |
| ELASTIC.USPT,PGPB.  | 204423    |
| ELASTICS.USPT,PGPB.                                       | 1189      |
| LAMINATE.USPT,PGPB.                                       | 64990     |
| LAMINATES.USPT,PGPB.                                      | 27634     |
| (STRETCH ADJ EDGE ADJ ELASTIC ADJ<br>LAMINATE).USPT,PGPB. | 1         |
| (STRETCH EDGE ELASTIC LAMINATE).USPT,PGPB.                | 1         |

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## WEST Search History

DATE: Thursday, August 22, 2002

**Set Name Query**

side by side

**Hit Count Set Name**

result set

*DB=USPT,PGPB; PLUR=YES; OP=ADJ*

|     |   |      |     |
|-----|---|------|-----|
| L11 | l2 and l9   | 87   | L11 |
| L10 | l2 and l8   | 20   | L10 |
| L9  | disposable same garment                                     | 2561 | L9  |
| L8  | disposable garment  | 697  | L8  |
| L7  | l2 and l5 and l6  | 1    | L7  |
| L6  | plurality same elastic same (filaments or fibers or fibres) | 1158 | L6  |
| L5  | (non\$1woven or un\$1woven)same facing same material        | 1429 | L5  |
| L4  | (non\$1woven or un\$1woven) facing material                 | 32   | L4  |
| L3  | plurality elastic (filaments or fibers or fibres)           | 20   | L3  |
| L2  | stretch same edge same elastic same laminate                | 105  | L2  |
| L1  | stretch edge elastic laminate                               | 1    | L1  |

END OF SEARCH HISTORY

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 5 of 5 returned.**☐ 1. Document ID: US 5861442 A

L14: Entry 1 of 5

File: USPT

Jan 19, 1999

US-PAT-NO: 5861442

DOCUMENT-IDENTIFIER: US 5861442 A

TITLE: Acrylonitrile polymer compositions and articles and methods for their preparation

DATE-ISSUED: January 19, 1999

## INVENTOR-INFORMATION:

| NAME            | CITY            | STATE | ZIP CODE | COUNTRY |
|-----------------|-----------------|-------|----------|---------|
| Merz; Edmund H. | Melbourne Beach | FL    |          |         |
| White; Roy A.   | Somers          | CT    |          |         |
| Fouser; John P. | San Francisco   | CA    |          |         |
| Fishman; Norman | Menlo Park      | CA    |          |         |

US-CL-CURRENT: 521/64; 264/81, 521/73, 521/79, 524/235, 524/280, 524/566, 525/540

## ABSTRACT:

Process of mixing a fugitive plasticizer, e.g., ethylene carbonate, with moist particulate polyacrylonitrile then removing the water enabling adjustment of the melt viscosity for extrusion of the polyacrylonitrile into film, fiber, pellets and shaped articles. Stretching and heating the extruded polyacrylonitrile film or fiber causes the fugitive plasticizer to exude and vaporize from the film or fiber, carrying with it any remaining acrylonitrile monomer. The resulting film or fiber exhibits substantially increased molecular weight, thus enhancing the tensile strength and barrier properties of the polyacrylonitrile product. The process also produces polyacrylonitrile foam products. A novel cross-linking agent for polyacrylonitrile, divinylxybutane, is disclosed. Thermostabilizing agents for polyacrylonitrile, N-maleimides and stilbene derivatives, are also disclosed.

16 Claims, 1 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[KIMC](#) [Draw Desc](#) [Image](#)☐ 2. Document ID: US 5804286 A

L14: Entry 2 of 5

File: USPT

Sep 8, 1998

US-PAT-NO: 5804286

DOCUMENT-IDENTIFIER: US 5804286 A

TITLE: Extensible composite nonwoven fabrics

DATE-ISSUED: September 8, 1998

INVENTOR-INFORMATION:

| NAME                  | CITY         | STATE | ZIP CODE | COUNTRY |
|-----------------------|--------------|-------|----------|---------|
| Quantrille; Thomas E. | Simpsonville | SC    |          |         |
| Thomas; Harold E.     | Greer        | SC    |          |         |
| Meece; Barry D.       | Pelzer       | SC    |          |         |
| Gessner; Scott L.     | Encinitas    | CA    |          |         |
| Gillespie; J. Darrell | Simpsonville | SC    |          |         |
| Austin; Jared A.      | Greer        | SC    |          |         |
| Newkirk; David D.     | Greer        | SC    |          |         |
| Fowells; William      | Washougal    | WA    |          |         |

US-CL-CURRENT: 428/198; 428/200, 428/373, 442/328, 442/329, 442/346, 442/347, 442/350,  
442/36, 442/361, 442/365, 442/389 , 442/394, 442/398, 442/399, 604/370, 604/372,  
604/385.16

ABSTRACT:

A fabric comprising at least two layers wherein at least one layer is an extensible, bonded non-woven composed of a fiber comprising multiple different polymers such as a fiber comprising isotactic polypropylene, polyethylene and a block or grafted polyolefin copolymer or terpolymer which is at least partially miscible with said polypropylene and polyethylene.

61 Claims, 6 Drawing figures

Exemplary Claim Number: 1,60

Number of Drawing Sheets: 2

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| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
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| KMC | Draw Desc | Image |
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☐ 3. Document ID: US 5773822 A

L14: Entry 3 of 5

File: USPT

Jun 30, 1998

US-PAT-NO: 5773822

DOCUMENT-IDENTIFIER: US 5773822 A

TITLE: Ion detector and high-voltage power supply

DATE-ISSUED: June 30, 1998

INVENTOR-INFORMATION:

| NAME              | CITY  | STATE | ZIP CODE | COUNTRY |
|-------------------|-------|-------|----------|---------|
| Kitamura; Satoshi | Tokyo |       |          | JP      |
| Sato; Tatsuji     | Tokyo |       |          | JP      |

US-CL-CURRENT: 250/281; 250/283

ABSTRACT:

An ion detector for use with a mass spectrometer or other instrument and a high-voltage power supply are provided. The detector comprises two dc power sources

connected in series at a junction grounded. Each dc power source delivers an output voltage which can be switched between 0 V and a given voltage. The junction between the resistors, or voltage-dividing terminal, is connected with a conversion dynode. The polarity of an ion-accelerating voltage applied to the conversion dynode is switched, depending on whether detected ions are positive or negative. Ions are accelerated and caused to strike the conversion dynode, thus releasing secondary electrons. The secondary electrons are accelerated and detected by a scintillator.

4 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

|      |       |          |       |        |                |      |           |           |             |
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| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
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| KWIC | Draw Desc | Image |
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☐ 4. Document ID: US 5690627 A

L14: Entry 4 of 5

File: USPT

Nov 25, 1997

US-PAT-NO: 5690627

DOCUMENT-IDENTIFIER: US 5690627 A

TITLE: Absorbent article with fit enhancement system

DATE-ISSUED: November 25, 1997

INVENTOR-INFORMATION:

| NAME                   | CITY          | STATE | ZIP CODE | COUNTRY |
|------------------------|---------------|-------|----------|---------|
| Clear; Sandra Hintz    | Longwood      | FL    |          |         |
| Buell; Kenneth Barclay | Cincinnati    | OH    |          |         |
| Stelljes; Denise Marie | West Chester  | OH    |          |         |
| Cummins; Merlene Adams | Lakeside Park | KY    |          |         |

US-CL-CURRENT: 604/385.29

ABSTRACT:

Absorbent articles, such as disposable diapers, incontinence briefs, diaper holders, training pants, and the like having fit panels that improve body contact of the containment assembly, with resulting improved fit, are provided. The fit panels have longitudinal elastic extensibility that provides a body contact force causing the containment assembly to have improved contact with a wearer throughout the full range of wearer motions. The longitudinal elastic extensibility of the fit panel also allows the absorbent article to adapt to the change in body rise dimensions that occurs during normal movement. An alternative embodiment of the invention also provides a stretchable attachment component allowing the waist feature of the absorbent article to be attached to the waistband of a wearer's clothing in a manner such that it can stretch and contract with the waistband while remaining attached.

23 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

|      |       |          |       |        |                |      |           |           |             |
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| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
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| KWIC | Draw Desc | Image |
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□ 5. Document ID: US 5635290 A

L14: Entry 5 of 5

File: USPT

Jun 3, 1997

US-PAT-NO: 5635290

DOCUMENT-IDENTIFIER: US 5635290 A

TITLE: Knit like nonwoven fabric composite

DATE-ISSUED: June 3, 1997

INVENTOR-INFORMATION:

| NAME               | CITY       | STATE | ZIP CODE | COUNTRY |
|--------------------|------------|-------|----------|---------|
| Stopper; Steven R. | Doraville  | GA    |          |         |
| Paul; Susan C.     | Alpharetta | GA    |          |         |
| Tinsley; Jon E.    | Roswell    | GA    |          |         |

US-CL-CURRENT: 428/198, 428/157, 428/212, 428/220, 428/373, 442/183, 442/329, 442/35,  
442/353, 442/361, 442/382, 442/394

ABSTRACT:

The present invention provides a natural fiber knit-like multi-layer composite containing at least one layer of a nonwoven fiber web and at least one layer of an elastomeric material, wherein the nonwoven web layer is joined to the elastic layer at spaced-apart locations and is gathered between said spaced-apart locations. The nonwoven fiber web is fabricated from multicomponent conjugate fibers or filaments that contain at least one polyolefin, and is a spunbond fiber web, staple fiber web or hydroentangled web. The composite exhibits soft, cloth-like texture of natural fiber knits as well as highly useful elastic properties.

19 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KMC | Draw Desc | Image

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| Term   | Documents |
|--|-----------|
| "5635290"[USPT]  | 1         |
| 5635290S   | 0         |
| "5690627"[USPT]  | 1         |
| 5690627S   | 0         |
| "5773822"[USPT]  | 1         |
| 5773822S   | 0         |
| "5804286"[USPT]  | 1         |
| 5804286S   | 0         |
| "5861442"[USPT]  | 1         |
| 5861442S   | 0         |
| ("5635290" OR "5690627" OR "5773822" OR "5804286"<br>OR "5861442")[PN].USPT. | 5         |
| ((5635290 OR 5690627 OR 5773822 OR 5804286 OR<br>5861442)[PN]).USPT.         | 5         |

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**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 12 of 12 returned.**☐ 1. Document ID: US 6001303 A

L15: Entry 1 of 12

File: USPT

Dec 14, 1999

US-PAT-NO: 6001303

DOCUMENT-IDENTIFIER: US 6001303 A

TITLE: Process of making fibers

DATE-ISSUED: December 14, 1999

## INVENTOR-INFORMATION:

| NAME                | CITY    | STATE | ZIP CODE | COUNTRY |
|---------------------|---------|-------|----------|---------|
| Haynes; Bryan D.    | Cumming | GA    |          |         |
| McManus; Jeffrey L. | Canton  | GA    |          |         |
| Busby; Rick         | Decatur | GA    |          |         |

US-CL-CURRENT: 264/555; 264/210.8, 264/211.14, 264/211.17

## ABSTRACT:

An apparatus and process for producing meltblown fibers employs a coflowing primary cold air flow and secondary hot air flow in a meltblowing nozzle. The primary cold air flow provides the majority of the force used to attenuate the polymer stream into fibers, while a secondary hot air flow shrouds the die tip and prevents premature quenching.

6 Claims, 6 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[KWIC](#) [Draw Desc](#) [Image](#)☐ 2. Document ID: US 5733822 A

L15: Entry 2 of 12

File: USPT

Mar 31, 1998

US-PAT-NO: 5733822

DOCUMENT-IDENTIFIER: US 5733822 A

TITLE: Composite nonwoven fabrics

DATE-ISSUED: March 31, 1998

## INVENTOR-INFORMATION:

| NAME              | CITY       | STATE | ZIP CODE | COUNTRY |
|-------------------|------------|-------|----------|---------|
| Gessner; Scott L. | Encinitas  | CA    |          |         |
| Trimble; Lloyd E. | Greenville | SC    |          |         |

US-CL-CURRENT: 442/35; 156/308.4, 156/62.4, 156/62.6, 264/211.14, 264/211.17, 264/237,  
264/83, 428/373, 442/328, 442/329, 442/36, 442/364, 442/381, 442/382, 442/389,  
442/392, 442/398, 442/399, 442/409, 442/57

## ABSTRACT:

The present invention provides composite nonwoven fabric laminates and processes for producing such. The fabric is comprised of a web of thermoplastic filaments laminated to at least one other web. Preferably, the filaments are spunbonded continuous polyolefin filaments which have an oxidatively degraded outer sheath portion to promote better interfibrillary bonding and improved fabric laminate strength. In a preferred embodiment, two outer nonwoven webs comprise oxidatively degraded spunbonded filaments and are positioned around and laminated to a web of meltblown microfibers thus forming a spunbond/meltblown/spunbond fabric. Additionally, a stretch compatible fabric may be formed in which a web of oxidatively degraded filaments is laminated to an elastic web. The fabrics of the invention may be advantageously used in numerous applications such as medical garments and disposable adsorbent products.

7 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

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| KMIC | Draw Desc | Image |
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☐ 3. Document ID: US 5385775 A

L15: Entry 3 of 12

File: USPT

Jan 31, 1995

US-PAT-NO: 5385775

DOCUMENT-IDENTIFIER: US 5385775 A

TITLE: Composite elastic material including an anisotropic elastic fibrous web and process to make the same

DATE-ISSUED: January 31, 1995

## INVENTOR-INFORMATION:

| NAME              | CITY    | STATE | ZIP CODE | COUNTRY |
|-------------------|---------|-------|----------|---------|
| Wright; Robert D. | Atlanta | GA    |          |         |

US-CL-CURRENT: 442/183; 428/326, 428/340, 428/903, 442/184

## ABSTRACT:

Disclosed is a composite elastic material adapted to provide improved tenacity in one direction and which includes (1) an anisotropic elastic fibrous web having at least one layer of elastomeric meltblown fibers and at least one layer of substantially parallel rows of elastomeric filaments autogenously bonded to at least a portion of the elastomeric meltblown fibers, and (2) at least one gatherable layer joined at spaced apart locations to the anisotropic elastic fibrous web so that the gatherable layer is gathered between the spaced-apart locations. The anisotropic elastic fibrous web has a strength index of at least about 2 or less than 0.5. The substantially parallel rows of elastomeric filaments in the elastic fibrous web may have an average diameter ranging from about 40 to about 750 microns and constitute at least about 20

percent, by weight, of the anisotropic elastic fibrous web.

23 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

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☐ 4. Document ID: US 4340563 A

L15: Entry 4 of 12

File: USPT

Jul 20, 1982

US-PAT-NO: 4340563

DOCUMENT-IDENTIFIER: US 4340563 A

TITLE: Method for forming nonwoven webs

DATE-ISSUED: July 20, 1982

INVENTOR-INFORMATION:

| NAME               | CITY       | STATE | ZIP CODE | COUNTRY |
|--------------------|------------|-------|----------|---------|
| Appel; David W.    | Wittenberg | WI    |          |         |
| Morman; Michael T. | Appleton   | WI    |          |         |

US-CL-CURRENT: 264/518; 19/299, 264/210.8, 264/211.14, 264/237, 425/66, 425/72.2,  
425/83.1

ABSTRACT:

An improved method and apparatus for forming nonwoven webs by spinning filaments into a quench chamber where they are contacted with a quenching fluid, then utilizing the quench fluid to draw the filaments through a two-dimensional nozzle spanning the full machine width, and collecting the filaments as a web on a porous surface. In contrast with the prior art, low motive fluid pressures can be used, and a non-eductive drawing means utilized to minimize air turbulence and the resulting filament entanglement in the drawing means while maintaining substantially constant cross machine filament distribution. The apparatus and process reduce problems relating to filament breakage and spreading and result in increased productivity and improved web formation. Other advantages include the ability to continuously spin highly pigmented polymer filaments and reduced hazards associated with high noise levels.

8 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

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| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
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| RMD | Draw Desc | Image |
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☐ 5. Document ID: US 3849241 A

L15: Entry 5 of 12

File: USPT

Nov 19, 1974

US-PAT-NO: 3849241

DOCUMENT-IDENTIFIER: US 3849241 A

TITLE: NON-WOVEN MATS BY MELT BLOWING

DATE-ISSUED: November 19, 1974

INVENTOR-INFORMATION:

| NAME             | CITY    | STATE | ZIP CODE | COUNTRY |
|------------------|---------|-------|----------|---------|
| Butin; Robert R. | Baytown | TX    |          |         |
| Keller; James P. | Baytown | TX    |          |         |
| Harding; John W. | Baytown | TX    |          |         |

US-CL-CURRENT: 428/137; 156/167, 264/210.8, 264/211, 264/211.17

ABSTRACT:

Melt blown non-woven mats prepared from thermoplastic polymer fibers and substantially completely free of polymer shot are produced at high polymer throughput rates in an improved melt blowing process in which thermoplastic polymer resins, preferably polypropylene, having initial intrinsic viscosities of at least 1.4, are degraded, optionally in the presence of a free radical source compound, to have both reduced intrinsic viscosities and an apparent viscosity in the melt-blowing nozzle orifices of from about 50 to about 300 poise.

37 Claims, 4 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 2

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| RMAC | Draw Desc | Image |
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☐ 6. Document ID: US 3802817 A

L15: Entry 6 of 12

File: USPT

Apr 9, 1974

US-PAT-NO: 3802817

DOCUMENT-IDENTIFIER: US 3802817 A

TITLE: APPARATUS FOR PRODUCING NON-WOVEN FLEECE

DATE-ISSUED: April 9, 1974

INVENTOR-INFORMATION:

| NAME              | CITY    | STATE | ZIP CODE | COUNTRY |
|-------------------|---------|-------|----------|---------|
| Matsuki; Mutsuo   | Nobeoka |       |          | JA      |
| Nishimura; Sadaji | Fuji    |       |          | JA      |
| Goto; Masato      | Fuji    |       |          | JA      |

US-CL-CURRENT: 425/66; 19/299, 264/210.2, 264/288.8, 264/555, 425/72.2, 425/83.1

ABSTRACT:

The invention relates to a process for the manufacture of a fleece-like sheet having a non-woven texture, from a large number of melt-spun monofilaments.

The improvement resides in the arrangement of the melt-spun monofilaments in a curtain-like form which is then subjected to the action of a pair of air jet streams in a sucker only once during travel of the curtain of monofilaments from the both sides thereof, the jet velocity of said jet streams being selected to be in the turbulent flow range, and then projected from the sucker onto a travelling gas pervious belt-like collector.

4 Claims, 6 Drawing figures Number of Drawing Sheets: 3

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| KWIC | Draw Desc | Image |
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☐ 7. Document ID: US 3692618 A

L15: Entry 7 of 12

File: USPT

Sep 19, 1972

US-PAT-NO: 3692618

DOCUMENT-IDENTIFIER: US 3692618 A

TITLE: TEXT NOT AVAILABLE

DATE-ISSUED: September 19, 1972

US-CL-CURRENT: 442/401; 156/167, 156/181, 28/247, 28/281, 28/282, 428/332, 428/340

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| KWIC | Draw Desc | Image |
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☐ 8. Document ID: US 3542615 A

L15: Entry 8 of 12

File: USPT

Nov 24, 1970

US-PAT-NO: 3542615

DOCUMENT-IDENTIFIER: US 3542615 A

TITLE: TEXT NOT AVAILABLE

DATE-ISSUED: November 24, 1970

US-CL-CURRENT: 156/181; 156/305

|      |       |          |       |        |                |      |           |           |             |
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| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
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| KWIC | Draw Desc | Image |
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☐ 9. Document ID: US 3502763 A

L15: Entry 9 of 12

File: USPT

Mar 24, 1970

US-PAT-NO: 3502763

DOCUMENT-IDENTIFIER: US 3502763 A

TITLE: TEXT NOT AVAILABLE

DATE-ISSUED: March 24, 1970

US-CL-CURRENT: 264/555; 264/103, 264/210.2, 264/511, 425/378.2, 425/72.2, 51/296

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| KWIC | Draw Desc | Image |
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☐ 10. Document ID: US 3502538 A

L15: Entry 10 of 12

File: USPT

Mar 24, 1970

US-PAT-NO: 3502538

DOCUMENT-IDENTIFIER: US 3502538 A

TITLE: TEXT NOT AVAILABLE

DATE-ISSUED: March 24, 1970

US-CL-CURRENT: 428/359; 428/364

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☐ 11. Document ID: US 3341394 A

L15: Entry 11 of 12

File: USPT

Sep 12, 1967

US-PAT-NO: 3341394

DOCUMENT-IDENTIFIER: US 3341394 A

TITLE: TEXT NOT AVAILABLE

DATE-ISSUED: September 12, 1967

US-CL-CURRENT: 442/366; 156/167, 162/157.3, 162/157.5, 264/123, 264/136, 264/441,  
264/484, 28/103, 28/257, 28/273, 428/483, 428/515, 428/523, 442/394

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☐ 12. Document ID: US 3338992 A

L15: Entry 12 of 12

File: USPT

Aug 29, 1967

US-PAT-NO: 3338992

DOCUMENT-IDENTIFIER: US 3338992 A

TITLE: TEXT NOT AVAILABLE

DATE-ISSUED: August 29, 1967

US-CL-CURRENT: 264/441; 264/109, 264/290.5, 264/465, 264/479, 264/484

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L16: Entry 1 of 11

File: USPT

May 2, 2000

US-PAT-NO: 6057024

DOCUMENT-IDENTIFIER: US 6057024 A

TITLE: Composite elastic material with ribbon-shaped filaments

DATE-ISSUED: May 2, 2000

## INVENTOR-INFORMATION:

| NAME                        | CITY           | STATE | ZIP CODE | COUNTRY |
|-----------------------------|----------------|-------|----------|---------|
| Mleziva; Mark Michael       | Appleton       | WI    |          |         |
| Shane; Richard Macferran    | Lilburn        | GA    |          |         |
| Willitts; Donald Vincent    | Powder Springs | GA    |          |         |
| Thomas; Oomman Painumoottil | Alpharetta     | GA    |          |         |
| Fitts, Jr.; James Russell   | Gainesville    | GA    |          |         |
| Morris; Marion Clyde        | Appleton       | WI    |          |         |

US-CL-CURRENT: 428/114; 156/161, 156/164, 156/166, 156/178, 156/179, 156/290, 428/181, 428/198, 442/329

## ABSTRACT:

A composite elastic material includes a layer of ribbon-shaped elastomeric elements disposed in machine direction alignment and point bonded to an extensible layer which may be a gatherable layer or a stretchable layer. A layer of meltblown elastomeric fibers may be bonded to the layer of elastomeric ribbon-shaped elements before bonding to the extensible layer. The elastic composite has excellent cohesion, controlled breathability to air and water vapor, an opaque appearance, and is easy to cut and convert to end use products such as garments, pads, diapers, and personal care products where elasticity is desired.

40 Claims, 10 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[KIMC](#) [Draw Desc](#) [Image](#)☐ 2. Document ID: US 5614297 A

L16: Entry 2 of 11

File: USPT

Mar 25, 1997

US-PAT-NO: 5614297

DOCUMENT-IDENTIFIER: US 5614297 A

TITLE: Polyolefin stretch film

DATE-ISSUED: March 25, 1997

## INVENTOR-INFORMATION:

| NAME               | CITY    | STATE | ZIP CODE | COUNTRY |
|--------------------|---------|-------|----------|---------|
| Velazquez; Alberto | Chicago | IL    |          |         |

US-CL-CURRENT: 428/212; 428/469, 428/472, 428/697, 428/699, 428/701, 428/702

## ABSTRACT:

A polyolefin blown or slot cast monolayer or multilayer stretch film useful as a trayed overwrap e.g. for fresh red meat includes at least three layers in the multilayer embodiment each of which contains an ethylene alpha-olefin copolymer having a density below 0.915 g/cm.<sup>3</sup> and having a melting point of at least 90.degree. C. with at least one outer layer and preferably also the first outer layer or the core layer having a second ethylene alpha olefin copolymer having a melting point less than 80.degree. C. blended therein.

76 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

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☐ 3. Document ID: US 5589520 A

L16: Entry 3 of 11

File: USPT

Dec 31, 1996

US-PAT-NO: 5589520

DOCUMENT-IDENTIFIER: US 5589520 A

TITLE: Acrylonitrile polymer composition and articles and methods for their preparation

DATE-ISSUED: December 31, 1996

## INVENTOR-INFORMATION:

| NAME            | CITY            | STATE | ZIP CODE | COUNTRY |
|-----------------|-----------------|-------|----------|---------|
| Merz; Edmund H. | Melbourne Beach | FL    |          |         |
| White; Roy A.   | Somers          | CT    |          |         |
| Fouser; John P. | San Francisco   | CA    |          |         |
| Fishman; Norman | Menlo Park      | CA    |          |         |

US-CL-CURRENT: 521/64; 521/73, 521/74, 521/78, 521/79, 521/94, 524/235, 524/280, 524/566

## ABSTRACT:

Process of mixing a fugitive plasticizer, e.g., ethylene carbonate, with moist particulate polyacrylonitrile then removing the water enabling adjustment of the melt viscosity for extrusion of the polyacrylonitrile into film, fiber, pellets and shaped articles. Stretching and heating the extruded polyacrylonitrile film or fiber causes the fugitive plasticizer to exude and vaporize from the film or fiber, carrying with it any remaining acrylonitrile monomer. The resulting film or fiber exhibits substantially increased molecular weight, thus enhancing the tensile strength and

barrier properties of the polyacrylonitrile product. The process also produces polyacrylonitrile foam products. A novel cross-linking agent for polyacrylonitrile, divinylxybutane, is disclosed. Thermostabilizing agents for polyacrylonitrile, N-maleimides and stilbene derivatives, are also disclosed.

6 Claims, 1 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 1

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☐ 4. Document ID: US 5419795 A

L16: Entry 4 of 11

File: USPT

May 30, 1995

US-PAT-NO: 5419795

DOCUMENT-IDENTIFIER: US 5419795 A

TITLE: High slip packaging film with trapped print

DATE-ISSUED: May 30, 1995

INVENTOR-INFORMATION:

| NAME              | CITY     | STATE | ZIP CODE | COUNTRY |
|-------------------|----------|-------|----------|---------|
| Wood; John C.     | Milton   |       |          | CA      |
| Accardi; Giuseppe | Brampton |       |          | CA      |

US-CL-CURRENT: 156/184, 156/229, 156/244.16, 156/244.17, 156/244.18, 156/259,  
156/272.6, 156/275.5, 156/277, 156/278

ABSTRACT:

A method of making a thermoplastic laminate includes the steps of extruding a tubular polymeric film; collapsing the extruded film to form a layflat film; slitting the edges of the collapsed film to form two plies; taking up both plies of the slit film onto a single take up roll to form a double wound film with two plies, the film having first and second outside surfaces; corona treating the first outside surface of the double wound film; applying a varnish to the treated surface; printing the varnished surface; corona treating the second outside surface of the double wound film; and taking up the printed film onto a wind-up roll such that the treated printed surface of one ply of the film in the roll bonds to the treated second outside surface on an adjacent wind in the roll, thereby forming a laminate. Alternatively, two separate films may be taken up on a take up roll to form a double wound film, and processed as described. The result is a trap printed laminate with good machinability and other properties.

14 Claims, 7 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 4

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☐ 5. Document ID: US 5393599 A

L16: Entry 5 of 11

File: USPT

Feb 28, 1995

US-PAT-NO: 5393599

DOCUMENT-IDENTIFIER: US 5393599 A

TITLE: Composite nonwoven fabrics

DATE-ISSUED: February 28, 1995

## INVENTOR-INFORMATION:

| NAME                       | CITY         | STATE | ZIP CODE | COUNTRY |
|----------------------------|--------------|-------|----------|---------|
| Quantrille; Thomas E.      | Simpsonville | SC    |          |         |
| Zimmerman, Jr.; G. Stanley | Greenville   | SC    |          |         |

US-CL-CURRENT: 442/57; 156/163, 156/164, 156/229, 428/109, 428/152, 428/198, 428/326, 428/903, 442/328, 442/383, 442/384, 442/387, 442/388, 442/394, 442/408

## ABSTRACT:

The invention provides elastic fabrics which exhibit low extensibility in the machine direction and have substantial elastic properties in the cross-machine direction. The fabrics of the invention include an elastic layer and a fibrous layer which are combined together. The fibrous layer is composed of a plurality of thermally activated binder fibers or filaments oriented substantially in the machine-direction of the fibrous web. The fabrics of the invention can be manufactured and processed more readily than fabrics which are elastic in both the machine direction and the cross-machine direction.

28 Claims, 3 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

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☐ 6. Document ID: US 5335675 A

L16: Entry 6 of 11

File: USPT

Aug 9, 1994

US-PAT-NO: 5335675

DOCUMENT-IDENTIFIER: US 5335675 A

TITLE: Stress-softened elastomeric films, articles, and method and apparatus for making such films and articles

DATE-ISSUED: August 9, 1994

## INVENTOR-INFORMATION:

| NAME                         | CITY              | STATE | ZIP CODE | COUNTRY |
|------------------------------|-------------------|-------|----------|---------|
| Wheeler, deceased; Robert G. | late of Greenbank | WA    |          |         |
| Hawley; William D.           | Angier            | NC    |          |         |

US-CL-CURRENT: 128/842; 128/849, 514/157

## ABSTRACT:

A stress-softened thermoplastic elastomeric (TPE) film which has been subjected to tensional deformation comprising at least uniaxial strain, and having improved textural and thermal transmissivity characteristics, as compared to a native,

unstretched material. Such stress-softened thermoplastic elastomeric film may be employed in a wide variety of articles, including condoms, finger cots, tubular bandages, and the like. Condoms comprising such stress-softened TPE film are described, including condoms having a main sheath comprising stress-softened and non-stress-softened areas in a pattern or other predetermined arrangement. A variety of methods and apparatus for forming stress-softened tubular articles of thermoplastic elastomeric film is disclosed.

14 Claims, 28 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 13

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☐ 7. Document ID: US 5236430 A

L16: Entry 7 of 11

File: USPT

Aug 17, 1993

US-PAT-NO: 5236430  
DOCUMENT-IDENTIFIER: US 5236430 A

TITLE: Disposable training pant having fusion-slit side seams

DATE-ISSUED: August 17, 1993

INVENTOR-INFORMATION:

| NAME               | CITY       | STATE | ZIP CODE | COUNTRY |
|--------------------|------------|-------|----------|---------|
| Bridges; Russel P. | Cincinnati | OH    |          |         |

US-CL-CURRENT: 604/396; 2/400, 2/402, 604/358, 604/366, 604/370, 604/393

ABSTRACT:

A disposable garment manufactured from a fusion-slit chassis having a pair of seams. The seams are formed by folding the chassis in the crotch portion so that the longitudinal side regions of the front portion and rear portion are superposed to form seaming areas; each seaming area is treated with ultrasonic energy sufficient to sever the material of the seaming area in a first area while simultaneously bonding the material of the seaming area in a marginal area adjacent the first area to form a flangeless seam which extends from the disposable garment 1/16" or less, preferably 1/32" or less, and in a preferred embodiment will form a splice between the front portion and rear portion of the chassis. The seaming area will consist of layers of polymeric material and in a preferred embodiment will consist of nonwoven webs of 100% polypropylene fibers.

17 Claims, 17 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 14

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☐ 8. Document ID: US 4484971 A

L16: Entry 8 of 11

File: USPT

Nov 27, 1984

US-PAT-NO: 4484971

DOCUMENT-IDENTIFIER: US 4484971 A

TITLE: Method and apparatus for making improved laminating film

DATE-ISSUED: November 27, 1984

## INVENTOR-INFORMATION:

| NAME           | CITY         | STATE | ZIP CODE | COUNTRY |
|----------------|--------------|-------|----------|---------|
| Wang; James C. | Libertyville | IL    |          |         |

US-CL-CURRENT: 156/244.14, 156/244.17, 156/244.18, 156/244.19, 156/244.24, 156/272.2,  
156/272.6, 156/498, 156/500

## ABSTRACT:

A method and apparatus for manufacturing a film suitable for use in lamination under heat and pressure. A plurality of resins is co-extruded into concentric annuli, the inner annulus being a polyester type resin, and at least one of the outer annuli consisting of a polyolefin based resin. The co-extrusion is carried out as the extruding die is rotated about its axis. After quenching to form a multi-layer seamless tube, the tube is collapsed and heated to a temperature suitable for biaxial orientation. An air bubble is introduced into the heated tube to expand the diameter thereof and simultaneously orient the tube biaxially by molecular orientation. The biaxially oriented tube is cooled sufficiently to retain its molecular orientation, and is then collapsed. The tube is then heated to a shrinking temperature while under controlled restraint to achieve a predetermined dimension in amount of shrinkage in the film. Finally, the edges of the shrunk tube are slit to form a pair of flat films.

Additional improvements are achieved by including irradiation of the films by ultraviolet light, and by treating one of the film surfaces with a corona discharge.

18 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

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☐ 9. Document ID: US 4477506 A

L16: Entry 9 of 11

File: USPT

Oct 16, 1984

US-PAT-NO: 4477506

DOCUMENT-IDENTIFIER: US 4477506 A

TITLE: Method and apparatus for making improved laminating film and improved film

DATE-ISSUED: October 16, 1984

## INVENTOR-INFORMATION:

| NAME           | CITY         | STATE | ZIP CODE | COUNTRY |
|----------------|--------------|-------|----------|---------|
| Wang; James C. | Libertyville | IL    |          |         |

US-CL-CURRENT: 428/172, 428/156, 428/349, 428/483, 428/520, 428/522

## ABSTRACT:

A method and apparatus for manufacturing a film suitable for use in lamination under heat and pressure. A plurality of resins is co-extruded into concentric annuli, the inner annulus being a polyester type resin, and at least one of the outer annuli consisting of a polyolefin based resin. The co-extrusion is carried out as the extruding die is rotated about its axis. After quenching to form a multi-layer seamless tube, the tube is collapsed and heated to a temperature suitable for biaxial orientation. An air bubble is introduced into the heated tube to expand the diameter thereof and simultaneously orient the tube biaxially by molecular orientation. The biaxially oriented tube is cooled sufficiently to retain its molecular orientation, and is then collapsed. The tube is then heated to a shrinking temperature while under controlled restraint to achieve a predetermined dimension in amount of shrinkage in the film. Finally, the edges of the shrunk tube are slit to form a pair of flat films.

Additional improvements are achieved by including irradiation of the films by ultraviolet light, and by treating one of the film surfaces with a corona discharge.

3 Claims, 8 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 2

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☐ 10. Document ID: US 4346142 A

L16: Entry 10 of 11

File: USPT

Aug 24, 1982

US-PAT-NO: 4346142  
DOCUMENT-IDENTIFIER: US 4346142 A

TITLE: Hydrophilic monomer treated microporous films and process

DATE-ISSUED: August 24, 1982

INVENTOR-INFORMATION:

| NAME              | CITY             | STATE | ZIP CODE | COUNTRY |
|-------------------|------------------|-------|----------|---------|
| Lazear; Nelson R. | New Martinsville | WV    |          |         |

US-CL-CURRENT: 428/315.7; 427/496, 428/319.7, 428/341, 428/518, 428/520

ABSTRACT:

The present invention is directed to a process for rendering a normally hydrophobic polyolefinic open celled microporous film relatively permanently hydrophilic, improving the water flow rate therethrough, and reducing the electrical resistance thereof by chemically fixing a controlled amount of at least one hydrophilic organic hydrocarbon monomer to the surface of the micropores of the film with ionizing radiation. The amount of hydrophilic monomer which is chemically fixed to the surface of the micropores is controlled to avoid plugging of the pores subsequent to the radiation treatment.

15 Claims, 0 Drawing figures  
Exemplary Claim Number: 1,8

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☐ 11. Document ID: US 3985599 A

L16: Entry 11 of 11

File: USPT

Oct 12, 1976

US-PAT-NO: 3985599

DOCUMENT-IDENTIFIER: US 3985599 A

TITLE: Slit film

DATE-ISSUED: October 12, 1976

## INVENTOR-INFORMATION:

| NAME                  | CITY                  | STATE | ZIP CODE | COUNTRY |
|-----------------------|-----------------------|-------|----------|---------|
| Lepoutre; Pierre      | Pointe Claire, Quebec |       |          | CA      |
| Pieniak; Heinz Alfred | Oak Forest            | IL    | 60452    |         |

US-CL-CURRENT: 156/164, 156/229, 156/259, 156/271, 264/146, 264/235.6, 264/290.2,  
428/134, 428/137, 428/910

## ABSTRACT:

A slit film and method of making same, the slits forming apertures defined by a plurality of axially oriented spaced apart ribbons, the film is pre-slit to define a plurality of substantially parallel interconnected ribbons and stretched axially of said ribbons to orient the ribbons and neck same down to define the open areas therebetween. Preferably, the ribbons will be interconnected at spaced apart nodes.

2 Claims, 9 Drawing figures

Exemplary Claim Number: 1,2

Number of Drawing Sheets: 5

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